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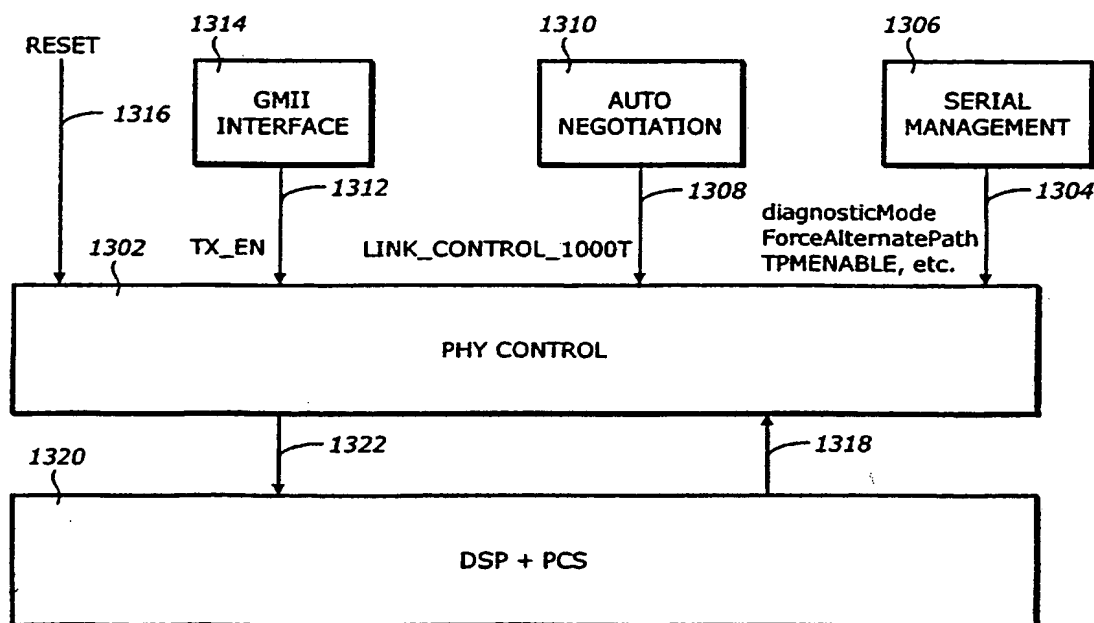
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(54) Title: PHY CONTROL MODULE FOR A MULTI-PAIR GIGABIT TRANSCEIVER



(57) Abstract: A method for controlling operation of a multi-pair gigabit transceiver. The multi-pair gigabit transceiver comprises a Physical Layer Control module (PHY Control), a Physical Coding Sublayer module (PCS) and a Digital Signal Processing module (DSP). The PHY Control receives user-defined inputs from the Serial Management module and status signals and diagnostics signals from the DSP and the PCS and generates control signals, responsive to the user-defined inputs, the status signals and diagnostics signals, to the DSP and the PCS.

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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 H04L25/14 H04L1/00 H04L25/03 H04L7/02

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 H04L

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, INSPEC, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 99 07077 A (STANFORD SYNCOM INC) 11 February 1999 (1999-02-11) page 17, paragraph 2 page 61, paragraph 1 -page 63, paragraph 3 page 67, paragraphs 2,3 page 104, paragraph 2 -page 109, paragraph 3 page 116, paragraph 3 -page 117, paragraph 2 figures 1I,3,1D,10C,34	1-10,12, 13,15-22
X	WO 98 09400 A (OELCER SEDAT ;CHERUBINI GIOVANNI (CH); UNGERBOECK GOTTFRIED (CH);) 5 March 1998 (1998-03-05) abstract page 7, line 23 -page 8, line 8 page 14, line 8 - line 16 --- -/--	9,10,12, 13

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>AGAZZI O E ET AL: "TWO-PHASE DECIMATION AND JITTER COMPENSATION IN FULL-DUPLEX DATA TRANSCEIVERS" PROCEEDINGS OF THE INTERNATIONAL SYMPOSIUM ON CIRCUITS AND SYSTEMS. (ISCAS),US,NEW YORK, IEEE, vol. CONF. 25, 10 May 1992 (1992-05-10), pages 1717-1720, XP000338277 ISBN: 0-7803-0593-0 * I. Introduction * * II.Full-Duplex Transceiver Architecture. *</p>	9-14
A	<p>--- "Local and metropolitan area networks, Specific Requirements, Part 3: Carrier sense multiple access with collision detection (CSMA/CD) access method and physical layer specifications." 1998 , LAN MAN STANDARDS COMMITTEE OF THE IEEE COMPUTER SOCIETY , USA XP002145257 * 34.1 Overview * * 34.1.1 Reconciliation Sublayer (RS) and Gigabit Medium Independent Interface (GMII). * * Clauses 36.1 to 36.2.2 * * 36.2.5.2.7 Auto-Negotiation Process * * 36.3.1. Service Interface of PMA sublayer. * * 36.3.7. Loopback mode * * 36.3.8. Test functions. * figures 34-1,36-1</p>	1-3, 15-17
A	<p>--- HATAMIAN ET AL.: "Design Considerations for Gigabit Ethernet 1000Base-T Twisted Pair Transceivers." CUSTOM INTEGRATED CIRCUITS CONFERENCE, 1998., 11 - 14 May 1998, pages 335-342, XP002145256 the whole document</p>	6-8, 20-22

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

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Patent document cited in search report		Publication date	Patent family member(s)		Publication date
WO 9907077	A	11-02-1999	AU	8684098 A	22-02-1999
			EP	1021884 A	26-07-2000
WO 9809400	A	05-03-1998	NONE		

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